



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON D.C. 20460**

**OFFICE OF THE ADMINISTRATOR  
SCIENCE ADVISORY BOARD**

February 8, 2011

**MEMORANDUM**

**SUBJECT:** Formation of Council Augmented with Subject Experts to Review EPA's Black Carbon Report to Congress

**FROM:** Stephanie Sanzone  
Designated Federal Officer (DFO)  
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**THRU:** Wanda Bright  
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**TO:** Vanessa Vu, Ph.D.  
Director  
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The October 2009 Interior Appropriations bill (P.L. 111-88) requires the EPA, in consultation with other Federal agencies, to prepare a comprehensive report to Congress on the climate effects of black carbon. Black carbon, or soot, results from incomplete combustion of organic matter such as fossil fuels and biomass. The report to Congress will evaluate and synthesize available information on sources of black carbon, impacts of black carbon on global and regional climate, and the potential utility and cost-effectiveness of mitigation options for reducing climate and public health impacts of black carbon. EPA's Office of Air Quality Planning and Standards (OAQPS) has asked the Advisory Council on Clean Air Compliance Analysis (Council), augmented with additional experts, to review the draft document, *Report to Congress on Black Carbon*, and comment on whether the document provides a complete and accurate synthesis of the available scientific and technical literature pertaining to black carbon (BC).

This memorandum addresses the set of determinations that were necessary for forming an augmented Council panel, referred to as the Black Carbon Review Panel, including:

- (A) The type of review body that will be used to conduct the review, and the nature of the review;

- (B) The list of candidates to be considered for the panel;
- (C) Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed;
- (D) How regulations concerning “appearance of a lack of impartiality,” pursuant to 5 C.F.R. § 2635.502, apply to members of the Panel; and
- (E) The selection of Panel members.

## **DETERMINATIONS:**

- (A) The type of review body that will be used to conduct the review, and the nature of this review.

The Council will be augmented with additional experts in black carbon, and this augmented panel (referred to as the Black Carbon Review Panel) will review the Agency’s draft *Report to Congress on Black Carbon* and provide advice on whether the document provides a complete and accurate synthesis of the available scientific and technical literature pertaining to black carbon (BC).

- (B) The list of candidates to be considered for the Panel.

The SAB Staff Office announced to the public through a *Federal Register* notice published on August 10, 2010 (75 FR 48328) that it was soliciting nominations of nationally and internationally recognized scientists in the fields of global and regional climate modeling; aerosol atmospheric chemistry; air emissions inventories; ambient monitoring and emissions measurement; health effects of black carbon and fine particulate matter (PM<sub>2.5</sub>); black carbon/PM<sub>2.5</sub> controls and associated costs; and benefits assessment. The *Federal Register* notice further stated that, in particular, the SAB Staff Office sought nominees with specialized knowledge and expertise in black carbon emissions, impacts, and control strategies.

The SAB Staff Office identified 19 experts to be considered to augment the Council for this review. These candidates were identified through the public nomination process or by SAB staff, have relevant expertise, and are willing to serve on the Panel. On November 30, 2010, the SAB Staff Office posted a notice on the SAB Web site inviting public comments on the List of Candidates for the Panel, including biographical sketches, by December 21, 2010. No public comments on the candidate list were submitted to the SAB Staff Office.

- (C) Financial conflict of interest considerations, including identification of parties who are potentially interested in or may be affected by the topic to be reviewed.

(a) Identification of parties who are potentially interested in or may be affected by the topic to be reviewed: The principal interested and affected parties for this topic are: (1) federal, state, and local government agencies, elected officials, and non-government organizations involved in the assessment or regulation of fine particulate air emissions; and (2) those involved

with the interests of private or public organizations that may be affected by policies or regulations developed on the basis of EPA's draft document, *Report to Congress on Black Carbon*.

(b) Conflict of interest considerations: For Financial Conflict of Interest (COI) issues, the basic 18 U.S.C. § 208 provision states that: "An employee is prohibited from participating *personally or substantially* in an official capacity in any *particular matter* in which he, to his knowledge, or any person whose interests are imputed to him under this statute has a *financial interest*, if the particular matter will have a direct and predictable effect on that interest [emphasis added]." For a conflict of interest to be present, all elements in the above provision must be present. If an element is missing the issue does not involve a formal conflict of interest; however, the general provisions in the appearance of impartiality guidelines must still apply and need to be considered.

(i) Does the general charge to the Panel involve a particular matter? A "particular matter" refers to matters that "...will involve deliberation, decision, or action that is focused upon the interest of specific people, or a discrete and identifiable class of people." It does not refer to "...consideration or adoption of broad policy options directed to the interests of a large and diverse group of people." [5 C.F.R. § 2640.103(a)(1)]. A particular matter of general applicability means a particular matter that is focused on the interests of a discrete and identifiable class of persons, but does not involve specific parties [5 C.F.R. § 2640.102(m)].

The activity of the Black Carbon Review Panel in addressing the charge for peer review of the draft document, *Report to Congress on Black Carbon*, will qualify as a *particular matter of general applicability* because the resulting advice will be part of a deliberation, and under certain circumstances the advice could involve the interests of a discrete and identifiable class of people but does not involve specific parties. That group of people constitutes those who are involved with private or public organizations facing regulatory decisions related to control of black carbon air emissions.

(ii) Will there be personal and substantial participation on the part of the Panel members? Participating personally means direct participation in this review. Participating substantially refers to involvement that is of significance to the matter under consideration. [5 C.F.R. § 2640.103(a)(2)]. For this review, the SAB Staff Office has determined that the *SAB Panel members will be participating personally in the matter*. Panel members will be providing the Agency with advice and recommendations on development of the EPA document, *Report to Congress on Black Carbon*, and such advice is expected to directly influence the Agency's findings on sources, impacts and mitigation options for black carbon. *Therefore, participation in this review also will be substantial.*

(iii) Will there be a direct and predictable effect on a Panel member's financial interest? A direct effect on a participant's financial interest exists if "...a close causal link exists between any decision or action to be taken in the matter and any expected effect of the matter on the financial interest. ...A particular matter does not have a direct effect ...if

the chain of causation is attenuated or is contingent upon the occurrence of events that are speculative or that are independent of, and unrelated to, the matter. A particular matter that has an effect on a financial interest only as a consequence of its effects on the general economy is not considered to have a direct effect.” [5 C.F.R. § 2640.103(a)(i)] A predictable effect exists if, “...there is an actual, as opposed to speculative, possibility that the matter will affect the financial interest.” [[5 C.F.R. § 2640.103(a)(ii)]

Candidates for the Panel were evaluated against the requirements of 5 C.F.R. § 2640.101(a), using each candidate’s confidential financial disclosure form (EPA Form 3110-48), to determine whether the work of the Panel will have a direct and predictable effect on his or her financial interests.

(D) How regulations concerning “appearance of a lack of impartiality,” pursuant to 5 C.F.R. § 2635.502, apply to members of the Panel

The Code of Federal Regulations at 5 C.F.R. § 2635.502(a) states that: “Where an employee knows that a particular matter involving specific parties is likely to have a direct and predictable effect on the financial interest of a member of his household, or knows that a person with whom he has a covered relationship is or represents a party to such matter, and where the person determines that the circumstances would cause a reasonable person with knowledge of the relevant facts to question his impartiality in the matter, the employee should not participate in the matter unless he has informed the agency designee of the appearance problem and has received authorization from the agency designee.” Further, § 2635.502(a)(2) states that, “An employee who is concerned that circumstances other than those specifically described in this section would raise a question regarding his impartiality should use the process described in this section to determine whether he should or should not participate in a particular matter.”

Candidates for the Panel were evaluated against the 5 C.F.R. 2635(a)(2) general requirements for considering an appearance of a lack of impartiality. Information used in this evaluation has come from information provided by potential advisory committee members (including, but not limited to, EPA 3110-48 confidential financial disclosure forms) and public comment as well as their responses to the following supplemental questions (included on the EPA 3110-48 confidential financial disclosure form):

1. Do you know of any reason that you might be unable to provide impartial advice on the matter to come before the panel/committee/subcommittee or any reason that your impartiality in the matter might be questioned?
2. Have you had any previous involvement with the review document(s) under consideration including authorship, collaboration with the authors, or previous peer review functions? If so, please identify and describe that involvement.
3. Have you served on previous advisory panels, committees or subcommittees that have addressed the topic under consideration? If so, please identify those activities.
4. Have you made any public statements (written or oral) on the issue that would indicate to

an observer that you have taken a position on the issue under consideration? If so, please identify those statements.

(E) The selection of Panel members

The SAB Staff Office Director makes the final decision about who serves on panels, based on all relevant information. This includes a review of the member's confidential financial disclosure form (EPA Form 3110-48) and an evaluation of an appearance of a lack of impartiality, and application of criteria to ensure a balanced panel.

As a result of a review of all relevant information including each candidate's confidential financial disclosure form (EPA Form 3110-48), the responses to the four questions above, and public comments, the SAB Staff Office has determined that there are no conflicts of interest or appearances of a lack of impartiality for the members of this Panel.

For the SAB Staff Office, a balanced committee or panel is characterized by inclusion of candidates who possess the necessary domains of knowledge, the relevant scientific perspectives (which, among other factors, can be influenced by work history and affiliation), and the collective breadth of experience to adequately address the general charge. Specific criteria to be used in evaluating an individual committee member include: (a) scientific and/or technical expertise, knowledge, and experience (primary factors); (b) availability and willingness to serve; (c) absence of financial conflicts of interest; (d) absence of an appearance of a lack of impartiality; (e) skills working in committees, subcommittees and advisory panels; and, for the committee as a whole, (f) diversity of scientific expertise, and viewpoints.

On the basis of the above-specified criteria, the members of the Black Carbon Review Panel are as follows:

**Council Members**

**Dr. Arden Pope**, Brigham Young University (UT), Chair  
**Dr. Michelle Bell**, Yale University (CT)  
**Dr. Kevin Boyle**, Virginia Tech (VA)  
**Dr. Sylvia Brandt**, University of Massachusetts (MA)  
**Dr. Linda Bui**, Brandeis University (MA)  
**Dr. Ivan Fernandez**, University of Maine (ME)  
**Dr. Alan Hansen**, Independent Consultant (CA)  
**Dr. Jonathan Levy**, Boston University (MA)  
**Dr. Denise Mauzerall**, Princeton University (NJ)  
**Mr. Richard Poirot**, VT Agency of Natural Resources (VT)  
**Dr. Armistead Russell**, GA Institute of Technology (GA)  
**Mr. Michael Walsh**, Independent Consultant (VA)

**Consultants**

**Dr. Alberto Ayala**, California Environmental Protection Agency (CA)  
**Dr. James J. Corbett**, University of Delaware (DE)  
**Dr. Christopher Frey**, North Carolina State University (NC)  
**Dr. Jan Fuglestad**, Center for International Climate and Environmental Research-Oslo  
**Dr. Joseph Helble**, Dartmouth College (NH)  
**Dr. Mark Jacobson**, Stanford University (CA)  
**Dr. Surabi Menon**, Lawrence Berkeley National Laboratory (CA)  
**Dr. John Watson**, Desert Research Institute (NE)

Concurred,

/s/

**02/08/11**

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Vanessa Vu, Ph.D.  
Staff Director  
EPA Science Advisory Board (1400R)

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Date